GROUP 35A

SERVICE BRAKES

CONTENTS

GENERAL INFORMATION

M2350000100365

Brake system with high reliability and durability have achieved distinguished braking performance.

FEATURES

BRAKING PERFORMANCE

1. 9-inch brake booster which assures the greater braking force with a slight force on the pedal is installed.
2. 14-inch disc brake is installed on the front wheels in order to achieve stable braking force and good braking feeling.
3. 8-inch leading trailing type drum brake or 14-inch disc brake is installed on the rear wheels.

STABILITY

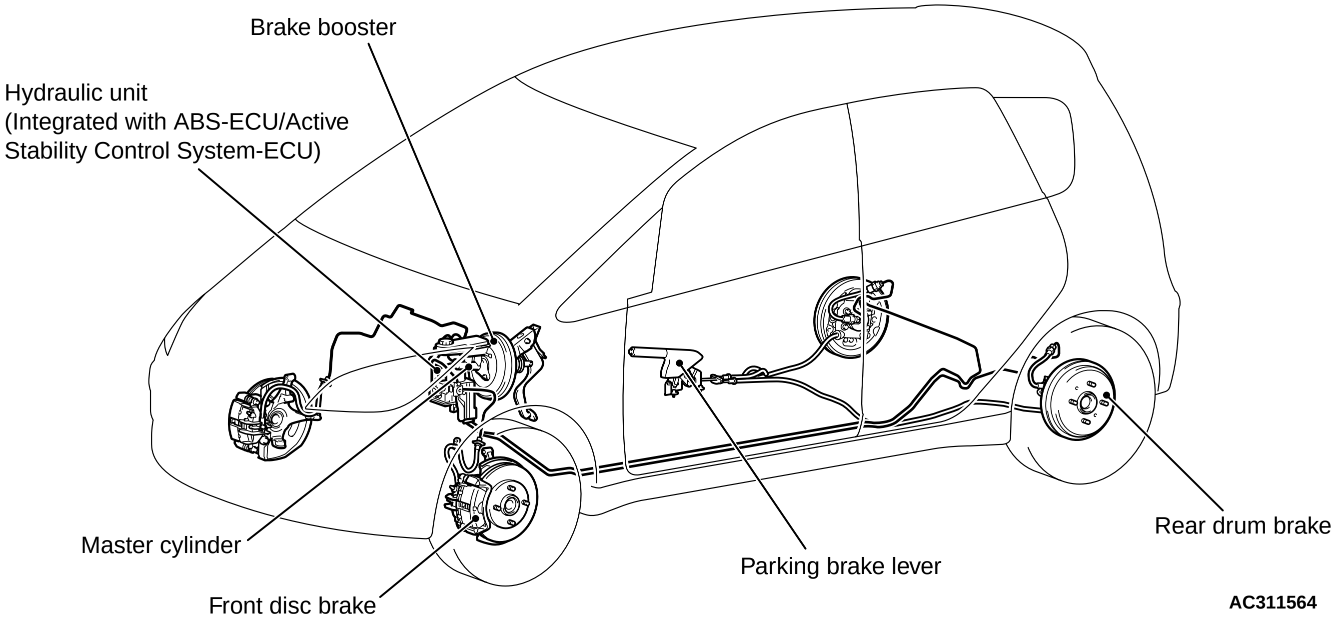
1. 4-wheel anti-skid braking system (4ABS) is adopted to prevent slipping caused by the vehicle wheels locking up, in order to maintain appropriate braking distance, and also to maintain vehicle stability and steering function.
2. Electronic brake-force distribution (EBD) is adopted to maintain the maximum amount of braking force even when the vehicle's load is varied.
3. Front- and rear-wheel X-type brake line layout is adopted.
4. Ventilated discs have been adopted to front brakes for good improve anti-fading performance.
5. A brake pedal retraction suppression structure that restrains the retraction of the brake pedal and reduces the shock to the feet of the driver in the event of a frontal collision has been adopted.

SERVICEABILITY

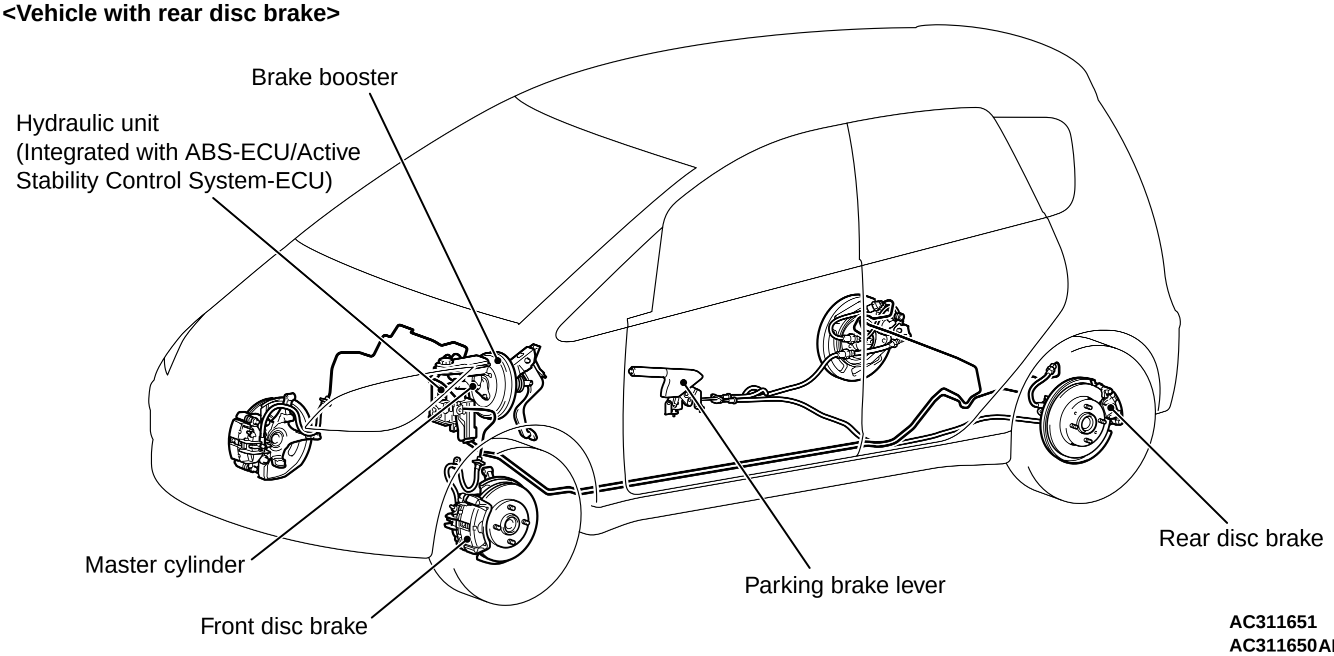
1. Diagnosis function is adopted for the ABS system in order to make inspection easier.
2. For the front and rear disc brakes, an outer disc separated hub and rotor is adopted to make removal and installation easier.
3. ABS-ECU and hydraulic unit have been integrated to make them more compact and lighter.

CONSTRUCTION DIAGRAM

<Vehicle with rear drum brake>



<Vehicle with rear disc brake>



SPECIFICATIONS

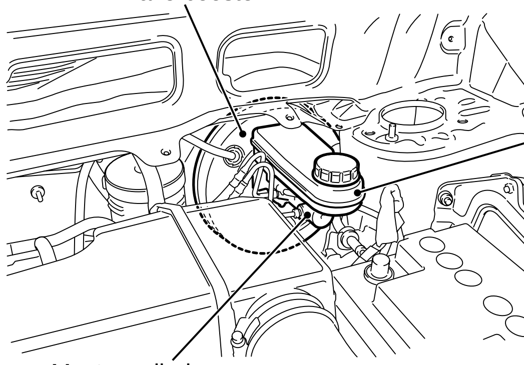
Item		1100 <without Active Stability Control System>, 1300 <without Active Stability Control System>	1100 <with Active Stability Control System>, 1300 <with Active Stability Control System>, 1500
Master cylinder	Type	Tandem type	Tandem type
	I.D. mm	22.22	22.22

Item		**1100 <without Active Stability Control System>, 1300 <without Active Stability Control System>**	**1100 <with Active Stability Control System>, 1300 <with Active Stability Control System>, 1500**
Brake booster	Type	Vacuum type, single	Vacuum type, single
	Effective dia. of power cylinder mm	230	230
	Boosting ratio	5.0	5.0
Rear wheel hydraulic control method		Electronic brake-force distribution (EBD)	Electronic brake-force distribution (EBD)
Front brakes	Type	Floating caliper, 1 piston, ventilated disc	Floating caliper, 1 piston, ventilated disc
	Disc effective dia. × thickness mm	256 × 24	256 × 24
	Cylinder I.D. mm	54	54
	Pad thickness mm	11.5	11.5
	Clearance adjustment	Automatic	Automatic
Rear disc brakes	Type	–	Floating caliper, 1 piston, solid disc
	Disc effective dia. × thickness mm	–	250 × 10
	Cylinder I.D. mm	–	34
	Pad thickness mm	–	10.0
	Clearance adjustment	–	Automatic
Rear drum brakes	Type	Leading trailing	–
	Drum I.D. mm	203	–
	Cylinder I.D. mm	19	–
	Clearance adjustment	Automatic	–
Brake fluid		DOT4+	DOT4+

CONSTRUCTION DESCRIPTION

MASTER CYLINDER

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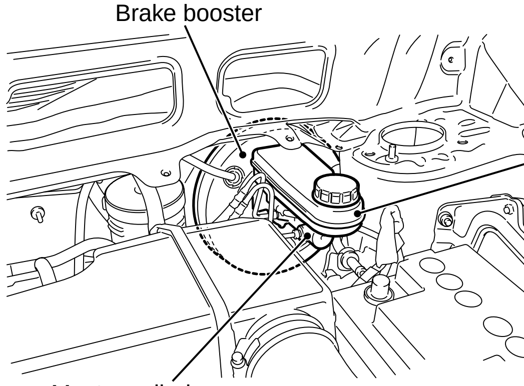


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The master cylinder is a tandem-type, with a structure that emphasizes safety.

BRAKE BOOSTER

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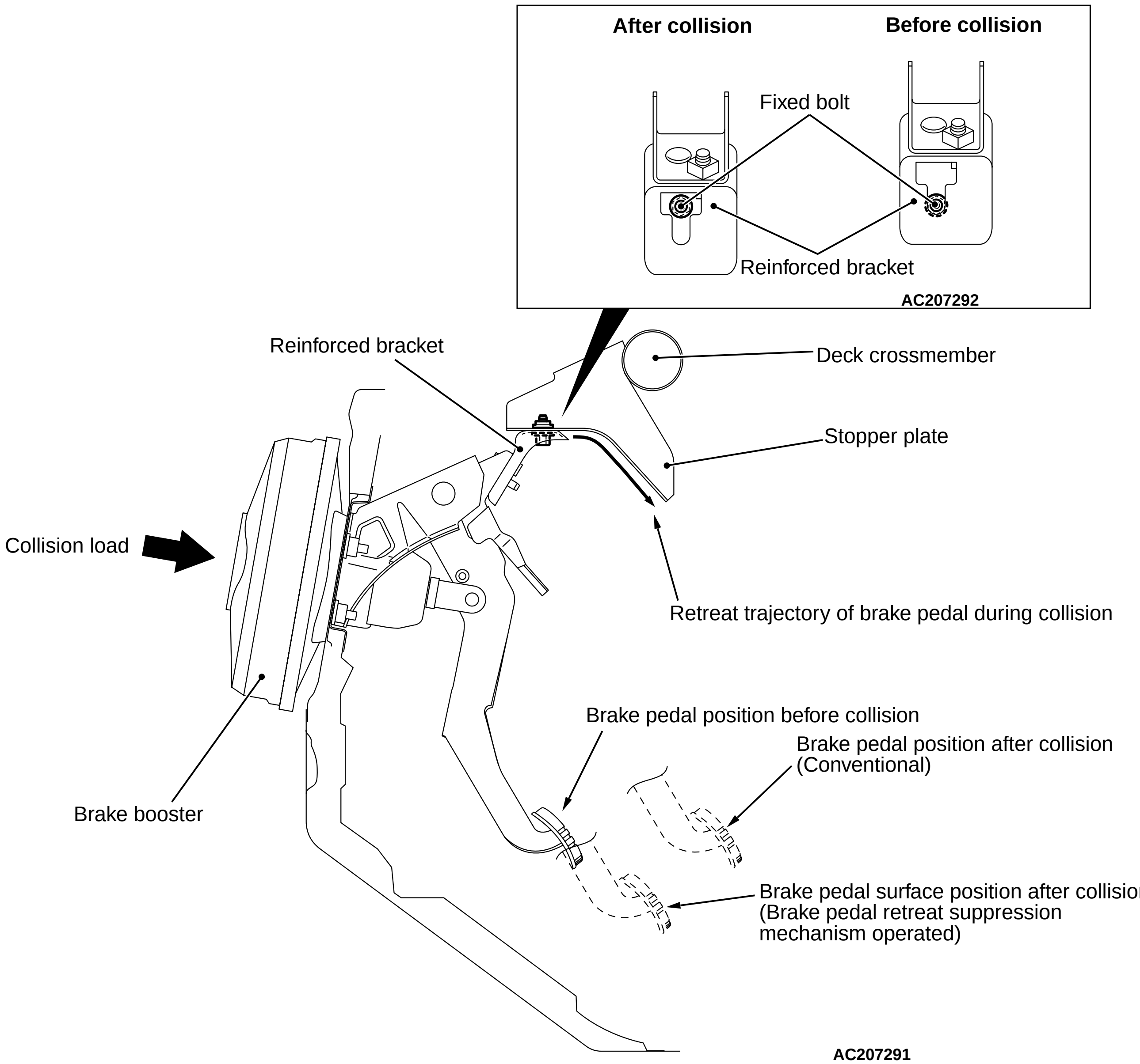


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9-inch brake booster has been installed.

BRAKE PEDAL

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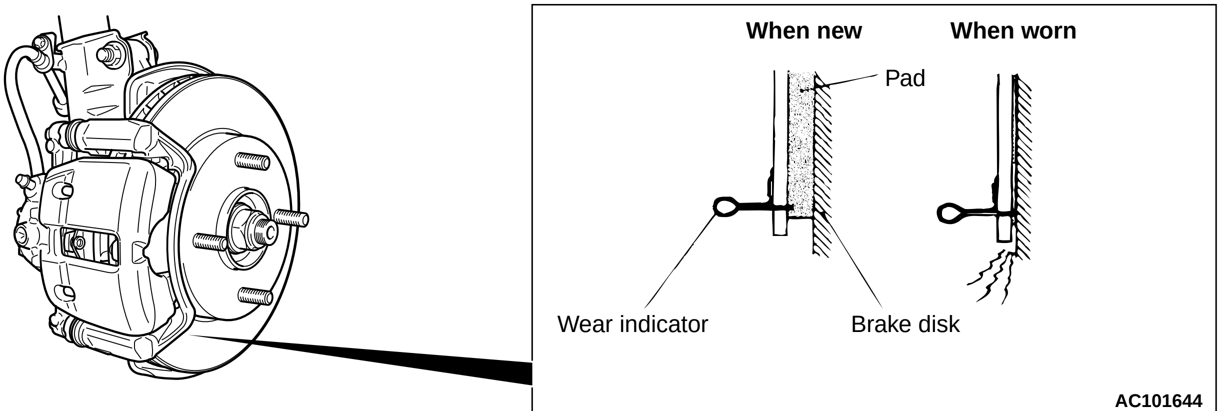
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The brake pedal retreat suppression mechanism that restraints the retraction of the brake pedal during frontal collision has been adopted in order to reduce the shock to the driver's feet.

If the brake booster is forced back by the retreating engine body during frontal collision, the fixing bolt on the brake pedal bracket is separated from the reinforced bracket. After separation, the reinforced bracket is forced to move back and downward along the stopper plate slope of the deck crossmember, preventing the brake pedal from moving back and upward.

FRONT BRAKE

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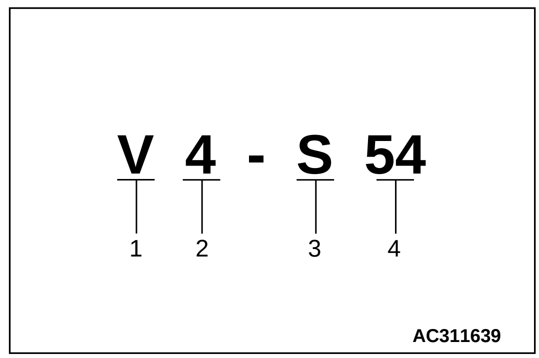


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- Ventilated disc brake (V4–S54) is installed.
- Audible wear indicator that informs the driver of wear limit is installed to the inner brake pad. (Only left side)

DISC BRAKE DESIGNATION

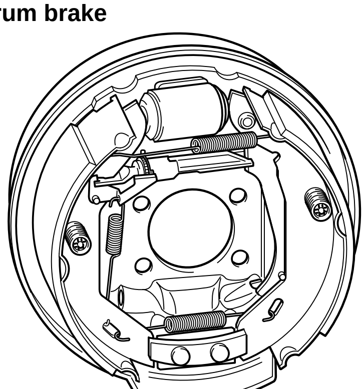


No.	Item	Content
1	Brake disc type	V: Ventilated
2	Brake size (Minimum applicable disc wheel)	4: 14-inch
3	No. of pistons	S: 1piston (floating type)
4	Piston size (rounded to nearest integer)	54: ϕ 54 mm

REAR BRAKE

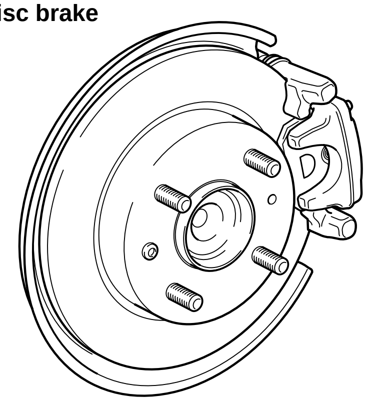
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Drum brake



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Disc brake

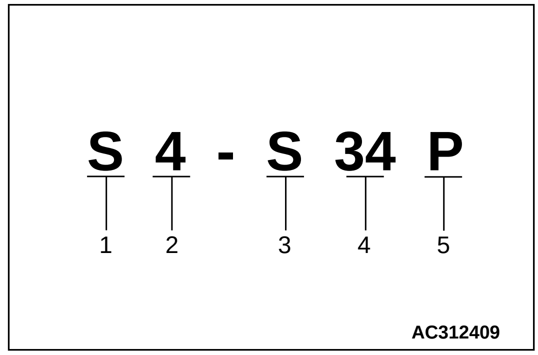


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- 8-inch leading trailing type drum brake, which assures stable braking force during forward or rearward movement, is installed.
- Solid type brake disc (S4–S34P) is installed on the rear brake systems.

Disc brake designation



No.	Item	Content
1	Brake disc type	S: Solid
2	Brake size (Minimum applicable disc wheel)	4: 14-inch
3	No. of pistons	S: 1piston (floating type)
4	Piston size (rounded to nearest integer)	34: ϕ 34 mm
5	Parking brake	P: Parking brake mechanism integrated